MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY

Floyd Memorial Hospital
1850 State Street
New Albany, Indiana 47150

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 043-13712-00016	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 4, 2001 Expiration Date: May 4, 2006

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary hospital.

Authorized Individual:	Michael Harlowe
Source Address:	1850 State Street, New Albany, Indiana 47150
Mailing Address:	1850 State Street, New Albany, Indiana 47150
SIC Code:	8062
County Location:	Floyd
County Status:	Nonattainment area for ozone Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD and Emission Offset Rules;

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) Three (3) natural gas-fired boilers, identified as Boiler # 1, Boiler # 2, and Boiler # 3, constructed in 1962, 1987, and 1981, respectively, each with a maximum heat input capacity of 14.7 million British thermal units (MMBtu) per hour, each with No. 2 fuel oil burners as back-up, and each exhausting to stacks 1, 2, and 3, respectively;

(b) One (1) equipment sterilization process, consisting of two (2) AMSCO gas sterilizers and one (1) AMSCO gas aerator, controlled by two (2) acid hydrolysis wet scrubbers, one (1) cryogenic condenser, two (2) vacuum pumps, one (1) peak flow shaver, and one (1) CFC-12 recovery cylinder;

(c) Two (2) emergency generators, combusting No. 2 fuel oil, with maximum capacities of 1073 HP, and 368.8 HP, and limited to a maximum of 500 hours per year; and

(d) Three (3) underground storage tanks, storing No. 2 fuel oil, with maximum capacities of 20,000 gallons, 2,500 gallons, and 5,000 gallons.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 Permit Term [326 IAC 2-6.1-7]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.2 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.3 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to

assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.4 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.5 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.6 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.7 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the

completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.12 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall

be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 Annual Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.16 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.17 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(b) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(d) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.19 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description

(a) Three (3) natural gas-fired boilers, identified as Boiler # 1, Boiler # 2, and Boiler # 3, constructed in 1962, 1987, and 1981, respectively, each with a maximum heat input capacity of 14.7 million British thermal units (MMBtu) per hour, each with No. 2 fuel oil burners as back-up, and each exhausting to stacks 1, 2, and 3, respectively;

(b) One (1) equipment sterilization process, consisting of two (2) AMSCO gas sterilizers and one (1) AMSCO gas aerator, controlled by two (2) acid hydrolysis wet scrubbers, one (1) cryogenic condenser, two (2) vacuum pumps, one (1) peak flow shaver, and one (1) CFC-12 recovery cylinder;

(c) Two (2) emergency generators, combusting No. 2 fuel oil, with maximum capacities of 1073 HP, and 368.8 HP, and limited to a maximum of 500 hours per year; and

(d) Three (3) underground storage tanks, storing No. 2 fuel oil, with maximum capacities of 20,000 gallons, 2,500 gallons, and 5,000 gallons.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-2-3]

(a) Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating**,** the PM emissions from Boiler # 1, rated at 14.7 MMBtu/hr shall be limited to the lesser of 0.8 lbs per MMBtu and the emission rate determined by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 2.16 \text{ lbs/MMBtu}$$

where

$C = 50$ u/m^3
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr) = 14.7 MMBtu/hr
N = number of stacks = 1
a = plume rise factor (0.67)
h = stack height (ft) = 37

Therefore, the PM emissions from Boiler # 1 shall be limited to 0.8 lbs/MMBtu.

(b) Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating**,** the PM emissions from Boiler # 3, rated at 14.7 MMBtu/hr shall be limited to the lesser of 0.6 lbs per MMBtu and the emission rate determined by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = 1.08 \text{ lbs/MMBtu}$$

where

$C = 50$ u/m^3
Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr) = 29.4 MMBtu/hr
N = number of stacks = 2
a = plume rise factor (0.67)
h = stack height (ft) = 37

Therefore, the PM emissions from Boiler # 3 shall be limited to 0.6 lbs/MMBtu.

D.1.2 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)**,** the PM emissions from Boiler # 2, rated at 14.7 MMBtu per hour shall be limited to 0.41 pounds per MMBtu heat input. This limitation is based on the Pt from the following equation:

$$Pt = 1.09/Q^{0.26}$$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input
Q = total source max. indirect heater input = 44.1 MMBtu/hr

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the three (3) 14.7 MMBtu per hour boilers, and the two (2) emergency generators shall not exceed five tenths (0.5) pounds per MMBtu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.4 General Provisions [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Kb.

D.1.5 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the one (1) fuel oil storage tank, with a maximum storage capacity of 20,000 gallons, storing liquid with a vapor pressure of less than 15.0 kPa, is subject to 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which requires the source to keep records of the dimensions and storage capacity of each storage vessel, as well as the true vapor pressure of the liquid being stored.

D.1.6 Nitrogen Oxides (NO_x)

Operation of each emergency generator shall not exceed 500 hours per twelve (12) month period. This operating limit shall limit total nitrogen oxides (NO_x) emissions from the two (2) emergency generators to 9.26 tons per twelve (12) month period. Therefore the requirements of 326 IAC 2-7 do not apply.

D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for equipment sterilization process and the underground storage tanks and any control devices.

Compliance Determination Requirements

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.3 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input, which is equivalent to a sulfur content of 0.5% when using No. 2 fuel oil, by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Visible Emissions Notations

(a) Visible emission notations of the boiler stacks exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.10 Record Keeping and Reporting Requirements [326 IAC 8-9]

Pursuant to 326 IAC 8-9-1(b) (Volatile Organic Liquid Storage Vessels), the source shall be exempt from all provisions of the rule, except that the source shall comply with the following recording and reporting requirements for the No. 2 fuel oil storage tanks:

(a) Maintain a record and submit to the department a report containing the following information for each vessel:

(1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

(4) A description of the emission control equipment, or a schedule for installation of emission control equipment, for each vessel described in 326 IAC 8-9-4(a) or (b).

(b) All records required by (a) of this condition shall be maintained for the life of the affected vessel.

(c) The report shall be submitted to the addresses listed in Section C - General Reporting Requirements within thirty (30) days after the end of the first calendar quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.1.3.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:

(1) the dimension of each storage vessel;

(2) an analysis showing the capacity of each storage vessel; and

(3) the true vapor pressure of each VOC stored in the one (1) 20,000 gallon fuel oil storage tank, indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa.

(c) To document compliance with Condition D.1.6, the Permittee shall maintain records at the source of the hours of operation for each emergency generator. The records shall by complete and sufficient to establish compliance with the hours of usage limits and/or NO_x emission limits established in this permit. The records shall contain a minimum of the following:

(1) The hours of operation for each month of emergency generator usage; and

(2) The 12 month rolling total of hours of operation for each emergency generator.

(d) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts (SV 1, SV 2, and SV 3) while combusting fuel oil.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Conditions D.1.3 and D.1.6 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall certify, on the form provided, that natural gas was fired in the boiler at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Floyd Memorial Hospital**
Address:	**1850 State Street**
City:	**New Albany, Indiana 47150**
Phone #:	**812-948-7400**
MSOP #:	**043-13712-00016**

I hereby certify that Floyd Memorial Hospital is
9 still in operation.
9 no longer in operation.

I hereby certify that Floyd Memorial Hospital is
9 in compliance with the requirements of MSOP 043-13712-00016.
9 not in compliance with the requirements of MSOP 043-13712-00016.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality
Compliance Data Section

Company Name: Floyd Memorial Hospital
Location: 1850 State Street, New Albany, Indiana 47150
Permit No.: 043-13712-00016
Source/Facility: Boilers # 1, 2, and 3 and two (2) emergency generators
Pollutant: SO_2
Limit: sulfur content of No. 2 fuel oil to be 0.5 % or less

Month: _____ **Year:** _____

Day	sulfur content of fuel oil	Day	sulfur content of fuel oil
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		**TOTAL**	

Submitted by: _____
Title/Position:_____
Signature:_____
Date:_____

Indiana Department of Environmental Management
Office of Air Management
Compliance Data Section

Quarterly Report

Company Name: Floyd Memorial Hospital
Location: 1850 State Street, New Albany, Indiana 47150
Permit No.: 043-13712-00016
Source: two (2) emergency generators
Limit: 500 hours per year for each generator

Year: _____

Month	Hours of Operation					
	This Month		Previous 11 Months		12 Month Total	
	Generator 1	Generator 2	Generator 1	Generator 2	Generator 1	Generator 2

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:_____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

PAGE 1 OF 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

PAGE 2 OF 2

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for Minor Source Operating Permit Renewal

Source Name:	Floyd Memorial Hospital
Source Location:	1850 State Street, New Albany, Indiana 47150
County:	Floyd
SIC Code:	8062
Operation Permit No.:	043-13712-00016
Permit Reviewer:	Lisa M. Wasiowich/EVP

On March 12, 2001, the Office of Air Quality (OAQ) had a notice published in the New Albany Tribune, New Albany, Indiana, stating that Floyd Memorial Hospital had applied for a Minor Source Operating Permit Renewal relating to the operation of a hospital. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes:

(1) A new Condition B.5 was added to the proposed MSOP to indicate the permit term, as follows:

B.5 Permit Term [326 IAC 2-6.1-7]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**Floyd Memorial Hospital**
Source Location:	**1850 State Street, New Albany, Indiana 47150**
County:	**Floyd**
SIC Code:	**8062**
Operation Permit No.:	**043-13712-00016**
Permit Reviewer:	**Lisa M. Wasiowich/EVP**

The Office of Air Quality (OAQ) has reviewed an application for the renewal of existing permits from Floyd Memorial Hospital relating to the operation of a hospital.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Three (3) natural gas-fired boilers, identified as Boiler # 1, Boiler # 2, and Boiler # 3, constructed in 1962, 1987, and 1981, respectively, each with a maximum heat input capacity of 14.7 million British thermal units (MMBtu) per hour, each with No. 2 fuel oil burners as back-up, and each exhausting to stacks 1, 2, and 3, respectively; and

(b) One (1) equipment sterilization process, consisting of two (2) AMSCO gas sterilizers and one (1) AMSCO gas aerator, controlled by two (2) acid hydrolysis wet scrubbers, one (1) cryogenic condenser, two (2) vacuum pumps, one (1) peak flow shaver, and one (1) CFC-12 recovery cylinder.

Exempted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

(a) Two (2) emergency generators, combusting No. 2 fuel oil, with maximum capacities of 1073 HP, and 368.8 HP, and limited to a maximum of 500 hours per year; and

(b) Three (3) underground storage tanks, storing No. 2 fuel oil, with maximum capacities of 20,000 gallons, 2,500 gallons, and 5,000 gallons.

Emissions from all these units are determined to be at the exemption level and has not been permitted.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 043-4761-00016, issued on April 2, 1996; and

(b) Exemption 043-3047-00016.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	boiler # 1	37	1.98	unknown	350-400
2	boiler # 2	37	2.65	unknown	350-400
3	boiler # 3	37	2.31	unknown	350-400

Enforcement Issue

There are no enforcement actions pending because the potential to emit of all regulated air pollutants is of exemption level for all unpermitted facilities, and they are therefore not subject to enforcement actions.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 8, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 7.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	3.2
PM-10	4.8
SO_2	99.3
VOC	4.9
CO	18.3
NO_x	36.9

HAP's	Potential To Emit (tons/year)
ethylene oxide	0.38
formaldehyde	0.01
hexane	0.35
TOTAL	0.74

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of sulfur dioxide SO_2 and oxides of nitrogen NO_x are equal to or greater than 25 tons per year but less than 100 tons per year. Therefore, pursuant to 326 IAC 2-6.1-2, a minor source operating permit is required.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	0
SO_2	0
VOC	0
CO	0
NO_x	0
HAP (specify)	not reported

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. Because the allowable PM emissions from the boilers are greater than the potential emissions, the boilers shall be limited to the potential emissions. The sterilizer shall be limited to the controlled potential emissions.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
boilers	2.80	4.60	98.00	1.10	16.20	27.60	0.36
emergency generators	0.40	0.20	1.29	0.43	2.12	9.26	0.00
ETD sterilizer	0.00	0.00	0.00	0.03	0.00	0.00	0.04
fuel oil storage tanks	0.00	0.00	0.00	0.20	0.00	0.00	0.00
Total Emissions	3.20	4.80	99.29	1.76	18.32	36.86	0.40

County Attainment Status

The source is located in Floyd County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	moderate nonattainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Floyd County has been designated as nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	3.20
PM10	4.80
SO_2	99.29
VOC	1.76
CO	18.32

NO_x	36.86

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and it is not in one of the 28 listed source categories.

(c) These emissions were based on the application submitted by the source.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

The source indicated in this Minor Source Operating Permit MSOP-043-13712-00016, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year (all emergency diesel generators are limited to 500 hours of operation per year to limit NO_x emissions from diesel generator operations to 9.26 tons per year),
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year,
(c) any combination of HAPs is less than 25 tons/year, and
(d) does not have a medical waste incinerator.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

(a) The three (3) 14.7 MMBtu per hour natural gas fired boilers are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because they were all constructed prior to June 9, 1989.

(b) The 2,500 gallons and the 5,000 gallons fuel oil storage tanks are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb), because they have a maximum storage capacity that is less than 40 cubic meters (10.567 gallons).

(c) The one (1) 20,000 gallon fuel oil storage tank and is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because the tank was constructed after July 23, 1984, and has a storage capacity greater than 40 cubic meters. However, since the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in the tank has a maximum true vapor pressure of less than 15.0 kPa, the tank is subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which requires the source to keep records of the dimensions and storage capacity of each storage vessel, as well as the true vapor pressure of the liquid being stored.

The source has already notified IDEM of the anticipated and actual start-up dates for this equipment through a registration with the Underground Storage Tank division, therefore the initial reporting requirements shall not apply.

(d) There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that are applicable to the equipment sterilization process. Also, there are no National

Emissions Standards for Hazardous Air Pollutants (326 IAC 14, 40 CFR Part 61, 326 IAC 20, and 40 CFR Part 63) that apply to the equipment sterilization process because the potential to emit a single HAP is less than 10 tons per year and the potential to emit a combination of HAPs is less than 25 tons per year.

(e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.

(f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 20 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because the source has PTE of any HAP less than 10 tons per year and PTE of any combination of HAPs less than 25 tons per year. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x and is located in Floyd County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is not subject to 326 IAC 8-6 (Organic Solvent Emission Limitations) because the potential to emit VOC from the entire source is less than 100 tons per year. Therefore, 326 IAC 8-6 does not apply.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is not subject to 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) because the potential to emit volatile organic compounds is less than 100 tons per year and the source is located in Floyd County. Therefore, 326 IAC 8-7 does not apply.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

This source is not subject to 326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties) because the potential to emit nitrogen oxides from the entire source is less than 100 tons per year. Therefore, 326 IAC 10-1 does not apply.

State Rule Applicability - Individual Facilities

326 IAC 6-2-3 (Emission Limitations for Sources of Indirect Heating)

(a) Boiler # 1, rated at 14.7 MMBtu/hr, and constructed in 1962 is subject to 326 IAC 6-2-3 for indirect heating facilities constructed prior to September 21, 1983. Pursuant to this rule, PM emissions from the boiler shall be limited to the lesser of 0.8 lbs per MMBtu and the emission rate determined by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} N^{0.25}}$$

where: C = maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain = 50 micrograms per cubic meter
Pt = pounds of particulate matter emitted per million Btu of heat input
Q = total source maximum operating capacity rating in million Btu per hour heat input
N = number of stacks in fuel burning operation
a = plume rise factor = 0.67
h = stack height in feet

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} N^{0.25}}$$

$$Pt = \frac{50 \times 0.67 \times 37}{76.5 \times 14.7^{0.75} 1^{0.25}}$$

Pt = 2.16 pounds per MMBtu

Therefore, the PM emissions from Boiler # 1 shall be limited to 0.8 lbs/MMBtu.

0.8 lbs/MMBtu * 14.7 MMBtu/hr =11.76 lb/hr = 51.51 tons/year

The potential worst case emissions from all three boilers of 2.80 tons of particulate matter is less than the allowable 51.51 tons per year. Therefore, this boiler is in compliance with this rule.

(b) Boiler # 3, rated at 14.7 MMBtu/hr, and constructed in 1981, is subject to 326 IAC 6-2-3 for indirect heating facilities constructed prior to September 21, 1983. Pursuant to this rule, PM emissions from the boiler shall be limited to the lesser of 0.6 lbs per MMBtu and the emission rate determined by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} N^{0.25}}$$

where: C = maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain = 50 micrograms per cubic meter
Pt = pounds of particulate matter emitted per million Btu of heat input
Q = total source maximum operating capacity rating in million Btu per hour heat input = 14.7 + 14.7 = 29.4 MMBth/hr
N = number of stacks in fuel burning operation
a = plume rise factor = 0.67
h = stack height in feet

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} N^{0.25}}$$

$$Pt = \frac{50 \times 0.67 \times 37}{}$$

$$Pt = \frac{76.5 \times 29.4^{0.75}\ 2^{0.25}}{}$$

Pt = 1.08 pounds per MMBtu

Therefore, PM emissions from Boiler # 3 shall be limited to 0.6 lbs/MMBtu.

0.6 lbs/MMBtu * 29.4 MMBtu/hr = 17.64 lb/hr = 77.26 tons/year

The potential worst case emissions from all three boilers of 2.80 tons of particulate matter is less than the allowable 77.26 tons per year. Therefore, this boiler is in compliance with this rule.

326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating)

Boiler # 2, rated at 14.7 MMBtu/hr, constructed in 1987 is subject to 326 IAC 6-2-4 for indirect heating facilities constructed after September 21, 1983. Pursuant to this rule, PM emissions from the boiler shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu of heat input
Q = total source maximum operating capacity rating in million Btu per hour heat input = 14.7 + 14.7 + 14.7 = 44.1 MMBtu/hr

$$Pt = \frac{1.09}{(44.1)^{0.26}}$$

Pt = 0.41 pounds per MMBtu

0.41 lbs/MMBtu * 44.1 MMBtu/hr = 18.08 lb/hr = 79.19 tons/year

The potential worst case emissions from all three boilers of 2.80 tons of particulate matter is less than the allowable 79.19 tons per year. Therefore, this boiler is in compliance with this rule.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1, sulfur dioxide emissions from the back-up No. 2 fuel oil combustion in the three (3) boilers (Boilers # 1, 2, and 3), each with maximum heat input capacities of 14.7 MMBtu per hour, and the two (2) emergency generators, shall be limited to five-tenths (0.5) pounds per million Btu. This equates to a fuel oil sulfur content limit of 0.5%. This is based on the following calculations:

0.5 lbs/MMBtu x 140,000 Btu/1000 gal = 70 lbs/1000gal
70 lbs/1000 gal / 157 lb/1000 gal = 0.5%

Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule. The source will comply with this rule by using No. 2 distillate fuel oil with a maximum sulfur content of 0.5% or less in the three (3) boilers and the two (2) emergency generators.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

The three (3) boilers and the two (2) emergency generators are subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. The source is located in Floyd County and the rule is applicable to this source for the No. 2 fuel oil storage tanks with storage capacities of 20,000 gallons, 5,000 gallons, and 2,500 gallons. Since these vessels have individual storage capacities of less than 39,000 gallons, only the record keeping and reporting requirements of 326 IAC 8-9-6 apply. Pursuant to 326 IAC 8-9-1(b), the source shall be exempt from all provisions of the rule, except that the source shall comply with the following record keeping and reporting requirements:

(a) Maintain a record and submit to the department a report containing the following information for each vessel:

(1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

(4) A description of the emission control equipment, or a schedule for installation of emission control equipment, for each vessel described in 326 IAC 8-9-4(a) or (b).

(b) All records required by (a) of this condition shall be maintained for the life of the affected vessel.

Conclusion

The operation of this hospital shall be subject to the conditions of the attached proposed **Minor Source Operating Permit 043-13712-00016.**

Appendix A: Emission Calculations

Company Name: Floyd Memorial Hospital
Address City IN Zip: 1850 State Street, New Albany, IN 47150
CP: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich/EVP
Date: January 30, 2001

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity				
Pollutant	Boilers Emissions	Emergency Generators Emissions	ETD Sterilizer Emissions*	Underground Storage Tanks Emissions	**TOTAL**
PM	2.80	0.40	0.00	0.00	3.2
PM10	4.60	0.20	0.00	0.00	4.8
SO2	98.00	1.29	0.00	0.00	99.3
NOx	27.60	9.26	0.00	0.00	36.9
VOC	1.10	0.43	3.16	0.20	4.9
CO	16.20	2.12	0.00	0.00	18.3
total HAPs	0.36	0.00	0.38	0.00	0.7
worst case single HAP	0.35	0.00	0.38	0.00	0.4
	hexane		ethylene oxide		

Total emissions based on rated capacity at 8,760 hours/year.
* Based on emission calculations provided by the source.

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity				
Pollutant	Boilers Emissions	Emergency Generators Emissions	ETD Sterilizer Emissions*	Underground Storage Tanks Emissions	**TOTAL**
PM	2.80	0.40	0.00	0.00	3.2
PM10	4.60	0.20	0.00	0.00	4.8
SO2	98.00	1.29	0.00	0.00	99.3
NOx	27.60	9.26	0.00	0.00	36.9
VOC	1.10	0.43	0.03	0.20	1.8
CO	16.20	2.12	0.00	0.00	18.3
total HAPs	0.36	0.00	0.04	0.00	0.4
worst case single HAP	0.35	0.00	0.04	0.00	0.3
	hexane		ethylene oxide		

Total emissions based on rated capacity at 8,760 hours/year, after control.
* Based on emission calculations provided by the source.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: Floyd Memorial Hospital
Address City IN Zip: 1850 State Street, New Albany, IN 47150
CP: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
44.1	386.3

Total heat capacity includes EU 01 rated at 15 MMBtu/hr, EU 02 rated at 15 MMBtu/hr and EU 03 rated at 22.5 MMBtu/hr.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.4	1.5	0.1	19.3	1.1	16.2

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: Floyd Memorial Hospital
Address City IN Zip: 1850 State Street, New Albany, IN 47150
CP: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.056E-04	2.318E-04	1.449E-02	3.477E-01	6.567E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	9.658E-05	2.125E-04	2.704E-04	7.340E-05	4.056E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil

Company Name: Floyd Memorial Hospital
Address, City IN Zip: 1850 State Street, New Albany, IN 47150
CP: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
44.1	2759.4	0.5

Total heat capacity includes EU 01 rated at 15 MMBtu/hr, EU 02 rated at 15 MMBtu/hr and EU 03 rated at 22.5 MMBtu/hr.

		Pollutant				
	PM*	PM-10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	3.3	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	2.8	4.6	98.0	27.6	0.5	6.9

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
*PM emission factor is filterable PM only. PM-10 includes filterable and condensable PM-10.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil
HAPs Emissions

Company Name: Floyd Memorial Hospital
Address, City IN Zip: 1850 State Street, New Albany, IN 47150
CP: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	7.73E-04	5.79E-04	5.79E-04	5.79E-04	1.74E-03

4.25E-03

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	5.79E-04	1.16E-03	5.79E-04	2.90E-03

5.22E-03

9.46E-03

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>600 HP)

Company Name: Floyd Memorial Hospital
Address City IN Zip: 1850 State Street, New Albany, IN 47150
CP#: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

Emissions calculated based on output rating (hp)

Heat Input Capacity Horsepower (hp)	Potential Throughput hp-hr/yr	S=	= WEIGHT % SULFUR
1073.0	536500.0	0.5	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0007	not provided	0.0040 *(.00809S)*	0.024 **see below	0.00071	0.00550
Potential Emission in tons/yr	0.2	0.0	1.1	6.4	0.2	1.5

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr
Note that the PM10 emission factor in lb/hp-hr is not provided in the Supplement B update of AP-42.
An average conversion factor of 1hp-hr = 7,000Btu is provided below.

Methodology

Potential Througput (hp-hr/yr) = hp * 500 hr/yr

Emission Factors are from AP 42 (Supplement B 10/96)Table 3.4-1 and Table 3.4-2
1 hp-hr = 7000 Btu, AP42 (Supplement B 10/96), Table 3.3-1, Footnote a.
Emission (tons/yr) = [Potential Throughput (hp-/hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)

*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (<600 HP)

Company Name: Floyd Memorial Hospital
Address City IN Zip: 1850 State Street, New Albany, IN 47150
CP#: 043-13712
Plt ID: 043-00016
Reviewer: Lisa M. Wasiowich
Date: January 23, 2001

Emissions calculated based on output rating (hp)

Heat Input Capacity Horsepower (hp)	Potential Throughput hp-hr/yr
368.8	184400.0

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.20	0.20	0.19	2.86	0.23	0.62

Methodology

Potential Througput (hp-hr/yr) = hp * 500 hr/yr

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-1

Emission (tons/yr) = [Potential Throughput (hp-/hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)
*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.